

Lessons from the Bay

Part 2: Getting Started

Choosing a Project

The hardest part of any project can be deciding what to do. This section offers guidance in designing a plan for action.

Sometimes students have trouble deciding what to do because they want to accomplish everything and they want to do it all right away. When making a plan for environmental action, it is important to choose a project that can be completed in a reasonable amount of time and accomplished with the people and materials available. It is discouraging when, midway through, unanticipated difficulties arise and a project turns out to be too complex to finish. Thus, teachers may wish to make first projects small ones.

First Steps

This **Project Action Guide** contains guidelines for several types of projects, as well as a section on established programs. The **Process Model** offers suggestions for teachers and students as they begin to choose a project. In addition, Virginia's Department of Environmental Quality and other groups publish lists of possible projects. (See the Department's *Ecology Club Projects and Resources* and other resources, p. 11.)

Depending on their personal preference, teachers may choose from a variety of strategies to help the class settle on a project:

- Teachers may wish to have all students participate in initial project selection, then form small groups to carry out various tasks.
- Teachers may prefer to have several small groups pursue independent small projects.
- Teachers may choose students to read over examples such as those in the DEQ list and think about similar projects they might be able to do in the school or the local community.
 After they report back to the group, their ideas may be a starting point to develop a project on which everyone agrees.

Brainstorming Sessions

Regardless of the initial approach, students will need to refine their ideas by way of a group brainstorming session. Each group should choose a secretary to write down every idea. Sometimes a seemingly silly idea can be the basis of a really creative plan.

Students should sort the project suggestions into topical categories such as recycling, wildlife, rainforest, or energy. (Groups will probably have different categories.) Group members should vote on which category they prefer. The teacher should then go over these ideas with the groups. Some are going to be projects that the students *might* be able to do, some will be ones they obviously *can* do, and some will be those that are simply *not* feasible. After reviewing the options, the teacher should eliminate the project ideas that students and teacher agree are truly impossible, or that most of the students do not want to do, or that are project ideas already being used. Several good ideas will probably remain. The students should choose one.

Project Analysis

The teacher should write the chosen project idea at the top of the blackboard or a big piece of paper. For their project selection, each group should then develop and record the answers to the following questions:

- What are we going to do?
- How are we going to do it?
- Who will do the work?
- From whom do we need to get permission?
- Who will help us?
- Where are we going to do this?
- What supplies do we need?
- Where are we going to get the supplies?
- How much money are we going to need?
- Where are we going to get the money?

- When are we going to start?
- When are we going to finish?

From this analysis, it should become apparent whether the necessary time, supplies, help, or cash is unavailable. Perhaps the original idea can be scaled back. For example, if it is not possible to recycle in every classroom of the school, students may try working with just the classrooms in their grade. If it is not possible to recycle paper, glass, plastic, and aluminum, they could try collecting just aluminum. Remember, it is much easier to start small and let the project grow later than to start too big and be unable to complete the project. (Note: Perhaps groups have ideas that would work best as part of an established program. See "Linking with Established Programs," below, for ideas.) Teachers may wish to keep a file of unused ideas. They may come in handy to start planning the next projects.

After groups have answered all of the preceding questions for their projects, the teacher should help students identify the major tasks to be done. A good way is to divide the class into workgroups responsible for these tasks. Each workgroup would go through the list of questions again, only this time writing down specific actions that will be needed to complete assigned tasks. For example, asking the question "What supplies do we need?" will generate a list of items and elicit further questions: Where will the items come from? Will students make them? Buy them? Borrow them? Select workgroup members to be responsible for getting all the items on the list. Similarly, asking the question "Who will help us?" will start a list of people and elicit further questions: What can each of these people do to help? Who is going to be responsible for contacting those people and asking for their help? Teachers should select workgroup members to record all the questions and actions arising from their group's session. Students should continue working through each of the questions for each task.

Schedule Development

Once the project has been selected and analyzed, the teacher should help the students prepare a timetable:

- Go through lists of tasks to be done and decide how long it will take to do each.
- Assign a date for completion of each task.
- Make a calendar for the project and write all of those dates on it.

- Make a calendar for each workgroup and write all pertinent dates on it.
- If there will not be enough time to do everything needed, consider scaling back the project again.

Linking with Established Programs

Benefiting from Other Programs

Many agencies and organizations are working to keep the environment healthy. Some have programs that allow students to help them. Working with established programs has several advantages:

- Teacher and students become part of a larger network of people who are working together toward a common goal.
- They have already planned and prepared materials, saving time and effort.
- Established programs usually offer a contact to call if there are questions or problems with the project.

Comparing Established Programs

Established programs are all different, so it is necessary to investigate the details fully before committing. Some charge for their materials. Some projects are for groups; others are for individuals. Some are for students; others are for adults. The following steps can help teachers identify the right project for their students:

- Be sure the project idea has engaged student interest. See "Choosing a Project" (p. 9, above) for help.
- Consider available programs, and select several that seem compatible with group interests. "Locating Established Programs and Resources" (p. 11, below) covers a few programs you might investigate. If your community has a litter control or clean community program, telephone that office to ask about local projects that your group might work on.
- Have students use telephone, letter writing, and Internet skills to learn more about these programs. (See "Using the World Wide Web for Project Research," p. 57; "Writing Business Letters," p. 59; and "Making Business Telephone Calls," p. 63.) Request

printed information about the program and its costs. Ask if there is an informational videotape that you might borrow. If the program has a nearby office, perhaps you can schedule a guest speaker to tell your group about projects available. (See "Getting Help from Guest Speakers," p. 61.) Allow several weeks for this step. You want to be sure that you seek as much helpful information as possible in order to choose the right partner.

- Have students carefully read all the information. What might prevent them from achieving success with these projects? If these problems cannot be solved, move on to another project.
- Pick a project. If nothing seems just right for your class, think about doing an independent project. Use some of what you have learned through your investigation.
- Have students make detailed plans and schedules as suggested above. Supervise their plan development carefully.

Locating Established Programs and Resources

The existing programs listed below have projects and resources for students and teachers. Contact information and a brief description are given for each program.

Chesapeake Bay Foundation.

http://www.cbf.org/site/PageServer?
pagename=edu_educators_index
Restoration projects include
Bay Grasses in the Classes and Bay Grass Seed Nursery
Resources supporting the Chesapeake Bay
Resources supporting other activities are also available.

Chesapeake Bay Program for Teachers. http://www.chesapeakebay.net/ index teachers.cfm>.

This site provides online fact sheets, lesson plans, and presentations for all grade levels. It also lists ideas for students to conserve and protect their watersheds. The publication Bay B C's is a Chesapeake Bay activity guide for grades K–3.

ChesSIE. Chesapeake Bay Program with Virginia Institute of Marine Science.

http://www.bayeducation.net>.

Chesapeake Science on the Internet for Educators (ChesSIE) provides links to Chesapeake Bay resources focused on restoration projects, lesson plans, Bay information, and more.

Dialogue for Kids: Wetlands. Idaho Public
Television. http://www.idahoptv.org/dialogue4kids/wetlands/index.html.

The Dialogue for Kids wetlands Web site stems from the Dialogue for Kids TV show.

Teachers can download episodes directly to their computer. Wetland links connect to various resources, including wetland facts, printable wetland coloring books, and classroom activities.

Ecology Club Projects and Resources. Virginia
Department of Environmental Quality.
http://www.deq.state.va.us/education/ecology.html.

Some of the DEQ projects listed on this site are concerned specifically with aquatic/Chesapeake Bay/water topics, while others focus on related issues such as animals/endangered species/wildlife or beautification/environmental education in

Environmental Education, Stewardship
Opportunities. Virginia Department of
Conservation and Recreation.
http://www.dcr.state.va.us/enviroed.htm.
This site offers information about the
community-based Adopt-A-Stream program,
volunteer opportunities, and much more.

Kids Cave. Virginia Department of Environmental Quality. http://www.deq.state.va.us/kids/. This online center for students helps to increase environmental awareness. It provides a listing of ideas for pollution clean up and a "Kids in Action" section that highlights contests and resources promoting student involvement in stream and waterway improvement.

National Wildlife Federation.

http://www.nwf.org/education/>.
This National Wildlife Federation site
provides educator workshops, a Schoolyard
Habitats program, and activity guides
including "Wading into Wetlands."

Save Our Streams. Izaak Walton League.

http://www.iwla.org/sos/">.

"Save Our Streams" offers an online Wetlands Campaign kit with information on watershed definitions, fact sheets, and project ideas for protection and conservation.

U.S. Fish and Wildlife Service.

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A free Watershed Activity Guide on this site addresses Chesapeake Bay watershed issues using maps and lesson ideas.

Virginia Naturally. Virginia Department of Environmental Quality.

http://www.vanaturally.com>.

Virginia Naturally provides information for teachers, including lesson plans on water topics, Standards of Learning resources for all subjects, award programs, and student environmental contests

Water Curriculum Resources. U.S. Environmental Protection Agency (EPA), Office of Wetlands and Coastal Protection Division.

http://www.epa.gov/teachers/curriculumwater.htm.

This EPA site provides online links to fact sheets, lesson plans, and water topics, including ecosystems, watersheds, and water conservation.

Watershed Profiles.

<http://www.chesapeakebay.net/wshed.htm>.
Watershed Profiles assembles maps, charts, and information that portray the environmental condition of Chesapeake Bay watersheds. This Internet application operates at a variety of scales from the entire 64,000 square mile Chesapeake Bay watershed to small tributary watersheds. Information on landscape changes, Bay Program activities, other organization activities, and places to visit are some of the information displayed in easy-to-read charts, maps, and tables. Visitors can type their ZIP Code to find their local watershed.

Watershed Weekly. GreenWorks.

http://www.greenworks.tv/watershedstv/ index.htm>.

This site has an innovative multimedia program that brings the watershed community to your home each week with a new 5- to 7-minute presentation about water quality issues.